Abstract

An apparatus and method for discriminating an FFT (Fast Fourier Transform) mode and a guard interval mode and detecting the start point of a useful symbol so that a receiver can carry out an FFT operation. The method includes the steps of: detecting a position in which an output value of a sliding integrator is maximal from a path of an observation guard interval selected from a plurality of guard intervals; comparing a value of the position in which the output value of the sliding integrator is maximal with a previous maximum-value position every counting period, producing a difference value between maximum-value positions, accumulating difference values during a predetermined time, producing an average value of the difference values, comparing the average value with a predetermined guard-interval discrimination parameter for the observation guard interval, and discriminating a guard interval mode and an FFT mode according to a result of the comparison; and detecting a position in which an accumulated correlation value is maximal from a path of a discriminated guard interval, adding a value of discriminated guard interval length to a value of the detected position to produce an addition value, and outputting the addition value as information associated with a start point of a useful symbol.